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READING READINESS--FACT AND FANCY.

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FOURTEEN STUDIES IN THE AREA OF READING READINESS ARE SURVEYED. MUCH OF THE RESEARCH IS DIRECTED AT THE CHILD WHO NEEDS A PERIOD OF READINESS, PARTICULARLY THE CULTURALLY DISADVANTAGED CHILD. THE VALIDITY OF READINESS TESTS, THE IMPORTANCE OF SEX DIFFERENCES, AND BEGINNING READERS ARE OTHER TOPICS DISCUSSED. REFERENCES ARE GIVEN. THIS ARTICLE IS PUBLISHED IN THE "JOURNAL OF THE READING SPECIALIST," VOLUME 11, OCTOBER 5, 1965. (HJ)

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READING READINESS: FACT AND FANCY

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Reading readiness has been the topic of much discussion and even controversy in recent years. Perhaps more emphasis has been placed on the way in which classroom time has been spent with pre-reading activities and the materials used in such activities than with the concept of readiness for reading in and of itself. A basic principle may be applied to all categories of learning; no one can learn before he is ready to learn regardless of the complexity of subject matter. A child must be ready in all areas of his development—physical, mental, social, and psychological. As Zingle and Hohol[13] say

> To be completely ready for an educational activity or learning experience, a child must want to learn, be sufficiently mature physiologically, possess appropriate mental abilities, and finally have had the right kind of educational experiences. (p. 99)

Much research has been conducted to determine the importance of reading readiness; which may be summarized by saying that the general consensus is that a period of readiness is necessary before reading instruction is introduced. The length of such a program is governed by the needs of the children. Some will be ready to read when they enter school and should begin reading immediately; others may need as much as 8 or 10 weeks of readiness instruction with the length of time again dependent upon the maturation of the individual child. Readiness activities should concentrate only on those deficiencies in a child's background which are essential to success in learning to read.

Let us direct our attention not to those children who are ready to read when they enter school but to those who need a period of readiness. A variety of factors are involved in learning to read—physical, emotional, social, and psychological. The importance of the physical facts of vision and audition is generally recognized. It is axiomatic that any physical defect of eye or ear should be recognized and needed adjustments in instructional methods made.

Barrett[2] reported a study the purpose of which was to determine the ability of 9 reading readiness factors (7 of which required varying degrees of visual discrimination) to predict first grade reading achievement. Complete data were obtained for 632 subjects—331 boys and 301 girls. Eight classes were from schools in the high socio-economic stratum; 10 classes from the middle socio-economic stratum, and 8 classes from schools in the low socio-economic stratum.

Reading readiness factors or independent variables used were C.A., intelligence, and 7 measures of visual discrimination. Instruments used included the Lorge-Thorndike Intelligence Tests, the following Gates Tests: Picture Directions Test, Word Matching Test, Word-Card Matching Test, Reading Letters and Numbers Test; Pattern Copying Test, Picture Squares Test, and Reversals Test. Reading Achievement was measured by Gates Primary Word Recognition Test, and Gates Primary Paragraph Reading Test.

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Barrett concluded that although the Reading Letters and Numbers Test was the best single predictor of first grade reading achievement, a cause and effect relationship was not demonstrated. Findings appeared to support the conclusion that an optimum combination of visual discrimination tasks for predicting first grade reading achievement would include tasks similar to Reading Letters and Numbers, Word Matching, and Pattern Copying. The strong showing by Pattern Copying and to a lesser degree by Picture Squares and Reversals gives support to Goins' findings that such tasks measure a type of visual ability which is useful in predicting first grade reading achievement. The reading readiness factors investigated did not provide enough predictive precision to warrant their use alone in predicting first grade reading achievement for individuals. Rather the findings in this general area emphasized that visual discrimination information must be supplemented through observation and evaluation of strengths displayed by individual children in other readiness areas if accurate decisions about reading readiness are to be made in the classroom. Although readiness test results are useful in indicating the needs of children and predicting success in reading, the importance of teacher observation and evaluation should not be minimized.

Readiness tests are used in testing programs in most schools either early in first grade or in kindergarten. A readiness test should be used to indicate the particular aspects of readiness instruction needed by individual children rather than to determine grouping procedures. A number of research studies have investigated the predictive validity of readiness tests. Zingle and Hohol attempted to determine whether the Metropolitan Readiness Tests are good predictors of success in grade one reading and arithmetic, as measured by year-end standardized tests and year-end teacher ratings. The population consisted of all grade one students in a public school system; the Metropolitan Readiness Test was administered to all children in June before entrance into grade one; a year later all students were given the Monroe Reading Test and the Edmonton Achievement in Arithmetic Test. The investigators concluded that the Metropolitan Readiness Tests are good predictors of success in grade one reading and arithmetic as measured by year-end standardized tests and year-end ratings. Another finding was that as both the Monroe Reading Test and teachers' ratings tended to discriminate about equally against boys, it would appear that there is a real sex difference in reading.

Mitchell[19] investigated the predictive validity of the Metropolitan Readiness Tests against the 1959 revision of the Metropolitan Achievement Tests as Criterion measure. Results on both the predictor and criterion tests were available for 1170 pupils in all the schools of a Virginia county. Test results indicated that the readiness tests were good predictors of first grade learning, there were no significant differences in validity between boys and girls. Mitchell concluded that readiness tests appeared to be a useful instrument in determining the degree of readiness for first grade learning.

The purpose of a study conducted by Dobson and Hopkins[7] was to assess the predictive validity and reliability of the Lee-Clark Reading Readiness Test for grades 1, 2, 3, and 4. Two criteria for reading success were used at all grade levels: (1) independent teacher ranking and (2) individual reading test performance on the Wide Range Achievement Test. The population included 326 pupils in 16 different classes. The investigators found that

the validity coefficients were moderate to low, decreasing generally with each successive grade. There was little lasting general variance by the fourth grade, only about 10%, which was interpreted to indicate that score difference on the readiness test at the beginning of grade 1 means little in terms of lasting individual differences.

Bryan[4] attempted to determine the relative importance of visual perception and intelligence in the reading development of primary age children—kindergarten through third grade. Tests administered included an intelligence test, readiness test, achievement test, and the Frostig test of visual perception. Bryan found that in kindergarten perception correlates more highly with reading readiness than does intelligence. In first grade visual perception had greater predictive value for reading readiness, comprehension and vocabulary than did intelligence. At the grade two level perception scores had greater predictive value for comprehension but less for vocabulary than did intelligence, and at the third grade level intelligence scores had more value in predicting reading success than perception. He concluded that visual perception as well as intelligence and reading readiness should be tested at kindergarten and first grade.

Balow[1] reported a study concerned with sex differences in first grade reading. Three hundred and two children—151 boys and 151 girls—were administered the Gates Reading Readiness Tests in September, the Lorge-Thorndike Intelligence Test in December, and the Gates Primary Reading Test in February. Balow found significant differences in reading readiness and reading achievement in favor of the girls. When reading readiness was held constant, the differences in achievement between the sexes were too small to be significant. Of the four subtests used to measure readiness, only the two word perception tests resulted in significant differences, again in favor of the girls. Boys at each level of readiness achieved as high as girls at the same level of readiness. Balow felt that the data seemed to support a nonmaturational rather than a maturational theory of sex differences in reading achievement.

Readiness experiences have been considered as a part of the kindergarten curriculum. Kindergarten was evaluated in terms of its "contribution to the child's readiness to do school work" in a study reported by Fox and Powell.[5] Of the 294 first grade children 179 had attended kindergarten and 115 had not. Both groups were equated for intelligence on the basis of scores on the California Test of Mental Maturity with an average I.Q. of about 108. At the beginning of first grade the Lee-Clark Reading Readiness Test was given, and at the beginning of second grade the California Achievement Test was administered to the population. On the basis of their findings, the investigators concluded that the kindergarten experiences of the sample neither developed readiness nor led to greater achievement in the primary grades; they stressed examination of the purposes of kindergarten programs and continuous evaluation of programs in terms of such purposes.

Sutton[11] reported a study in which 134 kindergarten children were selected for an investigation of visual and auditory abilities considered prerequisites for reading readiness. When the American School Reading Readiness Test, Form D was administered, results indicated that only two of the 134 children did not appear to possess those abilities considered to be reading readiness. Reading instruction was offered to any child who wished it. After considering all factors in the study, Sutton found that certain char-

acteristics of the child who is ready and who learns to read at an early age emerged. The child is probably a girl with one or more older siblings who occasionally read to her; she comes from a relatively high socio-economic level, and her father probably earns a living largely through mental endeavor rather than physical labor. Her parents are interested in school and their child's progress and have read to her since she was 1½ years old. She is interested in words, conscientious, self-reliant, able to concentrate, has a good memory, probably is not "happy-go-lucky", and probably can recognize and name letters of the alphabet. Sutton emphasized the need for much research in the area of learning to read at an early age, and stressed that reading instruction at the kindergarten level is not a dichotomy, but rather that unstructured reading activities may be provided for children ready for them in addition to other activities which make up a well rounded kindergarten curriculum.

We have long been aware that boys are more likely to experience difficulty in reading than are girls. Many theories have been advanced as to the reasons for this such as factors of growth, maturation, development, difference of reading interests of boys and girls, negative treatment of male learners by female teachers, and that content used in instructional material appeals to girls. McNeil[9] compared the learning of boys and girls under controlled conditions of programed instruction with the learning of the same children under direct instruction by female teachers. The possibility was explored that classroom teachers treat boys and girls differently, and that this difference in treatment is associated with differences in early reading achievement. The study was conducted in two phases: first, an auto-instructional program in reading was presented to kindergarten children followed by a criterion test of word recognition program taught words. Second, there was a follow-up study of the same children who were subsequently enrolled in first grade under the direction of seven female teachers. A similar criterion test of word recognition (teacher taught words) was administered after four months of instruction. The evidence of differential treatment of boys and girls and the relation of this treatment to progress in reading was gathered by means of a questionnaire to the teachers and a taped interview schedule individually administered to the children. From the original sample of 132 children, 49 boys and 44 girls were taught by the seven female teachers during the second phase of the study. A pretest of reading readiness which measured knowledge of letters and words to be taught by auto-instruction program and ability to recognize likenesses in letter configurations was given to the subjects before the study began. The performance of boys was not different from that of girls on this test. McNeil found that the boys in the study were not inferior in learning to read after auto-instructional procedures that provided frequent and equal opportunities to respond and insured identical presentation of reading lessons to boys and girls. However, the same boys were inferior in a similar learning task administered after ordinary classroom instruction. Data were also presented that indicated that these boys did not receive equal classroom treatment with the girls in the group. In McNeil's opinion the findings suggested that a study of the features of auto-instruction may be useful in developing teaching procedures more appropriate for boys than those now commonly used. Reduction in peer-group interaction brought about by a self-teaching device, for example, may result in better performance on the part of those male

learners who, under stimulation of peers and teacher, display aggression or for other reasons fail to attend to the lesson at hand.

The proper function of a reading readiness test has been a topic of discussion. Such tests have been used to determine which children are ready to begin reading, to determine what particular readiness instruction is desirable for which children, and to predict eventual reading achievement. The first two of these appear to be legitimate uses of readiness tests. Studies have indicated that children with high scores in readiness tests are able to achieve successfully in reading instruction. It is equally apparent that children with planned programs of readiness instruction, based in large part upon the findings of the readiness test, achieve more satisfactorily in reading instruction than those who attempt reading programs without work in readiness first. The third use of readiness tests, that of predicting success in reading achievement, seems less defensible. Evaluation is difficult because whatever teaching of readiness is done in the basal reading program will necessarily illuminate the ignorance that led to the low score in the readiness test and thus destroy whatever degree of predictability the test possessed. The studies which have attempted to determine this question have led to mixed conclusions. Evidently the concept of readiness has so permeated the basal series that they ordinarily include instruction in reading readiness.[14]

In recent years reading has not always been viewed in its proper perspective—that is its place (position) in the language arts. As reading is not an end in itself but rather a means to an end, that of ultimately acquiring information and knowledge, readiness for reading should include work in the other elements of the language arts. Oral language proficiency occupies an important part of the child's readiness to learn to read and has, at times, been minimized. Perhaps the whole spectrum of language arts should be reexamined so that reading does not occupy a place by itself or a segment of language arts instruction, but rather fits into the entire picture of the language arts curriculum. Hildreth summarized a number of studies which reported the relationship between language and reading and concluded that it was "doubtful whether a child could become a fluent reader, comprehending fully what he reads, without a good oral language foundation and continued attention to oral language improvement".

Much has been written recently concerning the bilingual or non-English speaking child; one does not teach him to read in English; one teaches him English which includes oral and written language, speaking, and listening as well as reading. Thus readiness for reading in its proper framework includes work in speaking and listening. The child is challenged to use language, to respond to it, and to learn the delights that are to be found in using and manipulating language. If the child is unable to do this, how else can he hope to enjoy reading the printed word?

Numerous studies attest to the importance of reading readiness for beginning reading. Children with high scores in readiness tests appear to do well in reading instruction. Children who have low scores in readiness tests appear to achieve in reading only if they have been taught readiness skills before beginning reading instruction.

Research and opinion seem to agree that the kindergarten and the home have definite roles in developing reading readiness, although disagreement exists as to the extent to which such learning should be planned. As usual in any area of learning the child who comes from a home and kindergarten

program where he has been encouraged to learn and use his language and has had an opportunity to learn a great deal at first hand about his world is better prepared to begin reading than is a child who has not had such advantages. Children most in need of readiness instruction are those who, for one reason or another, have been deprived of these learning opportunities.

Currently much attention is placed upon meeting the needs of the culturally disadvantaged child. Some studies have indicated the retarding effect on reading readiness of the verbally impoverished home. Experiences which we tend to assume are familiar to all children may be totally alien to a child from such surroundings. A book about animals in a zoo holds little meaning or interest for a child whose sole acquaintance with animals has been confined to scavengers of the street. We have a whole new area of responsibility if we are to attempt to prepare these children for reading. Some children from disadvantaged homes may come to school with very little experience in language; communication in the home has not been such as to foster language development. Others may come equipped with a language which is so far from standard English that it almost might be an alien tongue; the difference is not necessarily confined to pronunciation and usage but often includes a completely different terminology. Ware[12] said:

> Experience in the large city schools shows conclusively that the great majority of these children have extremely limited conventional vocabularies, that they do not speak readily in the sentence patterns of children from more favorable environments, and that a typical basal reading readiness program sometimes requires three to four times as much time as is expected for the mythically "average" child.

One of the many problems in teaching a child from a culturally disadvantaged background to read is the lack of experience in relating to adults with middle class mores and values which results in a lack of rapport between teacher and child. He needs help in raising his verbal level to that of the middle-class child.

We face a great challenge in attempting to prepare children from culturally disadvantaged environments to learn to read and to achieve in school. Hopefully the current emphasis on establishing pre-kindergarten programs will provide the youngsters with some of the experiences, particularly in language, which they need if they are to compete with children from middle class homes. The one thing we must remember is that they do not lack a culture, but that this cultural background represents a departure from the traditional middle class system of values with which we are so familiar.

Lloyd[8] listed several avenues of attack in meeting the reading needs of the socially disadvantaged child. New types of tests need to be developed to give a more valid picture of the disadvantaged child's capacity to learn to read. Present group intelligence and reading readiness tests must be replaced by instruments which do not "militate against the disadvantaged and that, at the same time, give a true picture about the abilities and needs of all the other children in our schools".

Lloyd goes on to mention the efforts which must be made to encourage language and concept development in the pre-school years and visualizes an increasing number of nursery schools, pre-school programs and workshops for parents. A corollary of such programs is the need for new and varied materials growing out of the interests and experiences of children.

In a recent article Black[3] cited several factors which are concerned with

the causes and results of cultural deprivation and which Dr. Newton S. Metfessel believes to be operative in the lives of children from disadvantaged homes. Dr. Metfessel is Director for the Study of the Education of Disadvantaged Youth at the University of Southern California.

Several concepts of culturally disadvantaged children are directly related to readiness for instruction; a number of these are particularly pertinent to readiness for reading. There may be significant gaps in knowledge and learning. If a child's background has not prepared him for success in a traditional curriculum, he participates in communication procedures and patterns which are alien to him. Frequently he has not had experience in receiving approval for successful completion of a task. If adults in the community have had relatively little success in school, children in this environment can hardly expect to be self-motivated in classroom work. Often their range of experience outside the home is very narrow. Children from culturally disadvantaged backgrounds understand more language than they use; this points up the necessity previously mentioned of expanding the oral language range of the child. Frequently they use a great many words with some precision, but the words are not representative of the school culture. Their language development may be hindered because they do not perceive the concept that objects have names, or that a single object may have several or different names. They use a significantly smaller portion of mature sentence structures, they learn less from what they hear than do middle-class children. The importance of teaching all children the skills of listening has often been pointed out. This appears to be particularly true for disadvantaged children who come from a milieu in which the radio, television, and sounds made by many people living in crowded quarters provide a background of noise from which the individual must retreat. Culturally disadvantaged children need to see concrete application of what is learned to immediate sensory and topical satisfaction. The importance of a series of well defined instructional tasks and attendant goals, continued verbalization, and frequent evaluation of progress is implied by this factor. Culturally disadvantaged children tend to have a poor attention span and consequently experience difficulty in following the orders of a teacher.

The lack of connected discourse and generally inadequate communication processes in the disadvantaged home foster the inability of children to attend. This environmental deficiency is reinforced by differences in the vocabulary and syntax used in the classroom and in the home. The pupil whose cultural background is the same as that of the teacher is in a position to supply through context much that he may have missed during intermittent periods of inattention.

Culturally disadvantaged children frequently end the reading habit before it is begun. Metfessel says that the cycle of skill mastery which demands that successful experiences generate more motivation to read and in turn generates levels of skill sufficient to prevent discouragement, may be easily reversed in direction and end the reading habit prior to its beginning. Books, magazines, and newspapers are more easily dispensable than food and clothing for among very low income groups they do not represent necessities.

Finally, culturally disadvantaged children need assistance in perceiving an adult as a person of whom one asks questions and receives answers. The growing tendency of teachers to act as directors of classroom activity and to

perceive themselves as resource persons implies an area in which culturally deprived children will need specific help. They must be helped to accommodate themselves to an adult role which is unfamiliar to them.

Much remains to be done in research for readiness for beginning reading. A number of areas apparently have not yet been investigated. In some studies reading readiness tests have been used to predict reading achievement; instructional emphasis then has been placed on the needs indicated by the test results necessarily eliminating any predictive aspect of the test.

One area which merits investigation concerns sex differences in readiness. A number of studies have indicated that scores in reading readiness are higher for girls than for boys. General agreement exists that boys are more likely to experience difficulty in reading than are girls.

A study might be designed to discover the incidence of visual difficulties sufficient to cause problems in beginning reading but which are not uncovered by the screening devices used in the schools.

Children from culturally disadvantaged backgrounds frequently experience difficulty in reading. Emphasis should be placed on meeting the particular needs of these children and supplying the background essential if a foundation for reading is to be established. A study might attempt to discover how the needs of these children might best be met and the period of time necessary to meet them. It is possible that the presently available readiness activities are not structured to supply the foundation essential for reading instruction.

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Data on the writing samples, and on the replication population reported on in interim reports 7 (CRA Annual Proceedings) and 8 (JRS, May, 1963), will be reported in succeeding issues of the Journal. Early data on Stanford Achievement matched pair testing suggest results similar to those in Table I.

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